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Head of AI & Design Innovation

Redefining the Design Process.

CitA Intleacht Series,
AI for Gen Design: Planning & Early Stage Decision Making
March 2026

Head of AI & Design Innovation

I lead AI Strategy and Research at Henry J Lyons Architects

270+ people, Dublin & Cork, working across most sectors.

Registered architect with the RIAI, 15+ years of practice.

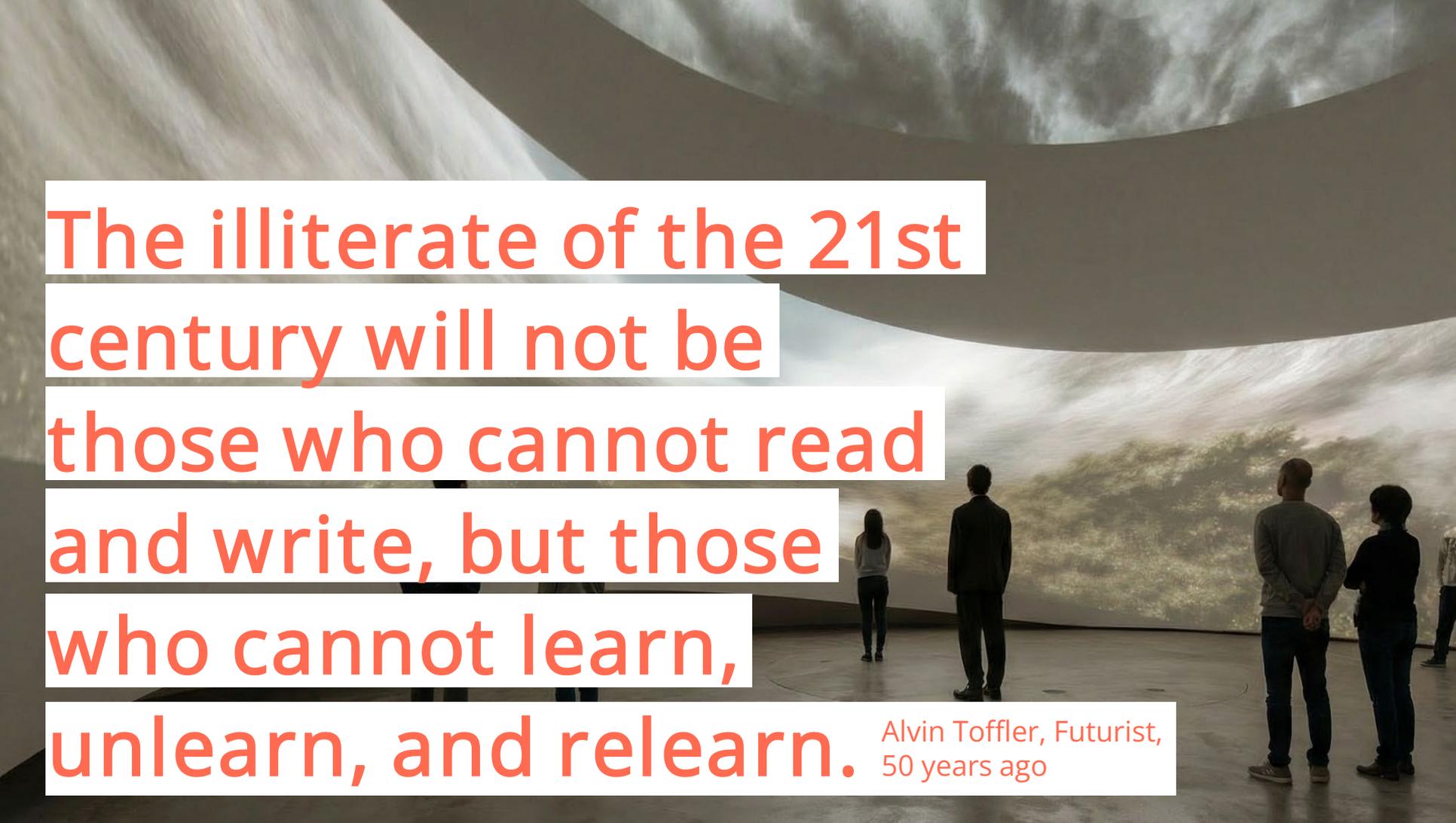
As an architect, I understand **how we design, how clients think, and how a practice is run.**

15 months in this role has made clear this change is **more about people than technology.**

I focus on **responsible adoption, governance, transparency,**
and building **trust** before building dependency.

I bridge the **technical** with the **practical.**

Who Am I & Who We Are.



The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.

Alvin Toffler, Futurist,
50 years ago

AI is shifting how decisions get made, how we communicate our ideas, and what matters in our designs.

Every practice is different, and this shift has to grow from an understanding of how yours actually works.

We did not test AI in isolation.

The Practice-Wide Shift.

We built an environment to experiment safely and realise value. Policies and guardrails that were more permissive than restrictive.

We provided the tools, encouraged their use, and put adoption at the centre of the strategy.

Demand followed interest.
Interest showed potential.
Potential became results.

You've probably noticed AI hasn't made your workload lighter. There's a reason. It's called **Jevons Paradox**. When something gets cheaper and easier, **we don't do less of it. We do more.**

More work can be explored. **More value** gets created.
More responsibility follows.

The opportunity is **not** to do
the **same work for less.**

The roles we will have in ten years
may not exist yet.

That's worth being excited about.

**More Work.
More Value.
More Responsibility.**

Protect Our Value.

As designers, we are critical thinkers.
It is our most valuable asset.

Knowing when to **trust** the output is a skill.
Judgement, taste, and critical thinking
become **more valuable** as AI expands.

Shift → **Specialists** answer the question.
Generalists find the better one.

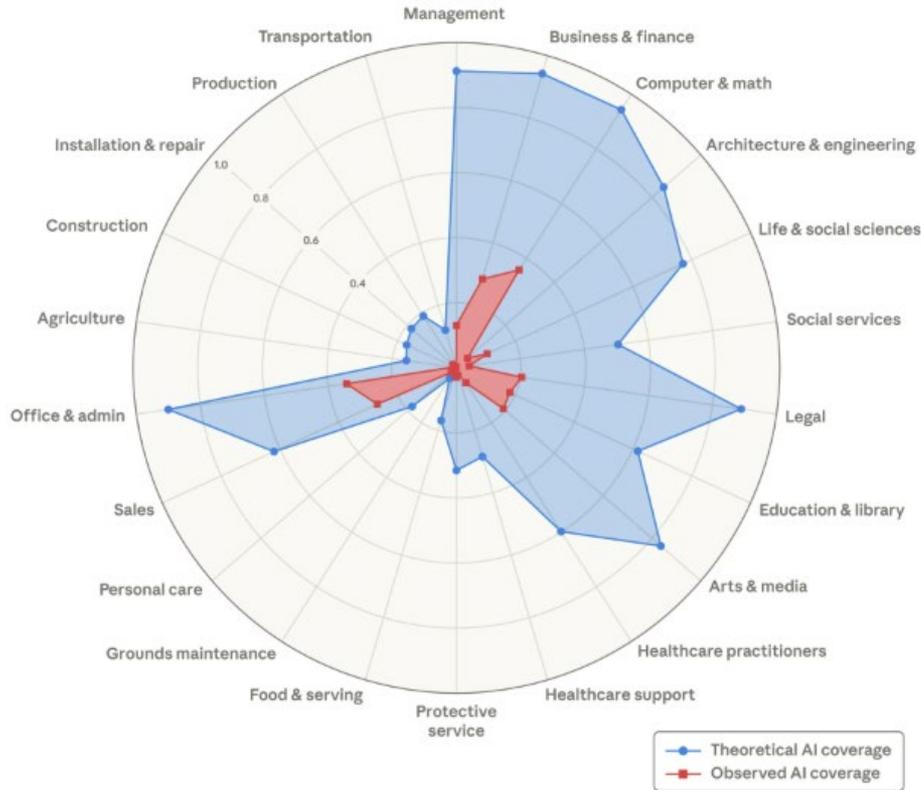
Architects are trained to think across disciplines.

The **most valuable** people in practice
will move fluidly across problems.

We will see a shift from **Author** to **Steward**.

Owning the **quality, direction, and integrity** of every decision.

Theoretical capability and observed usage by occupational category

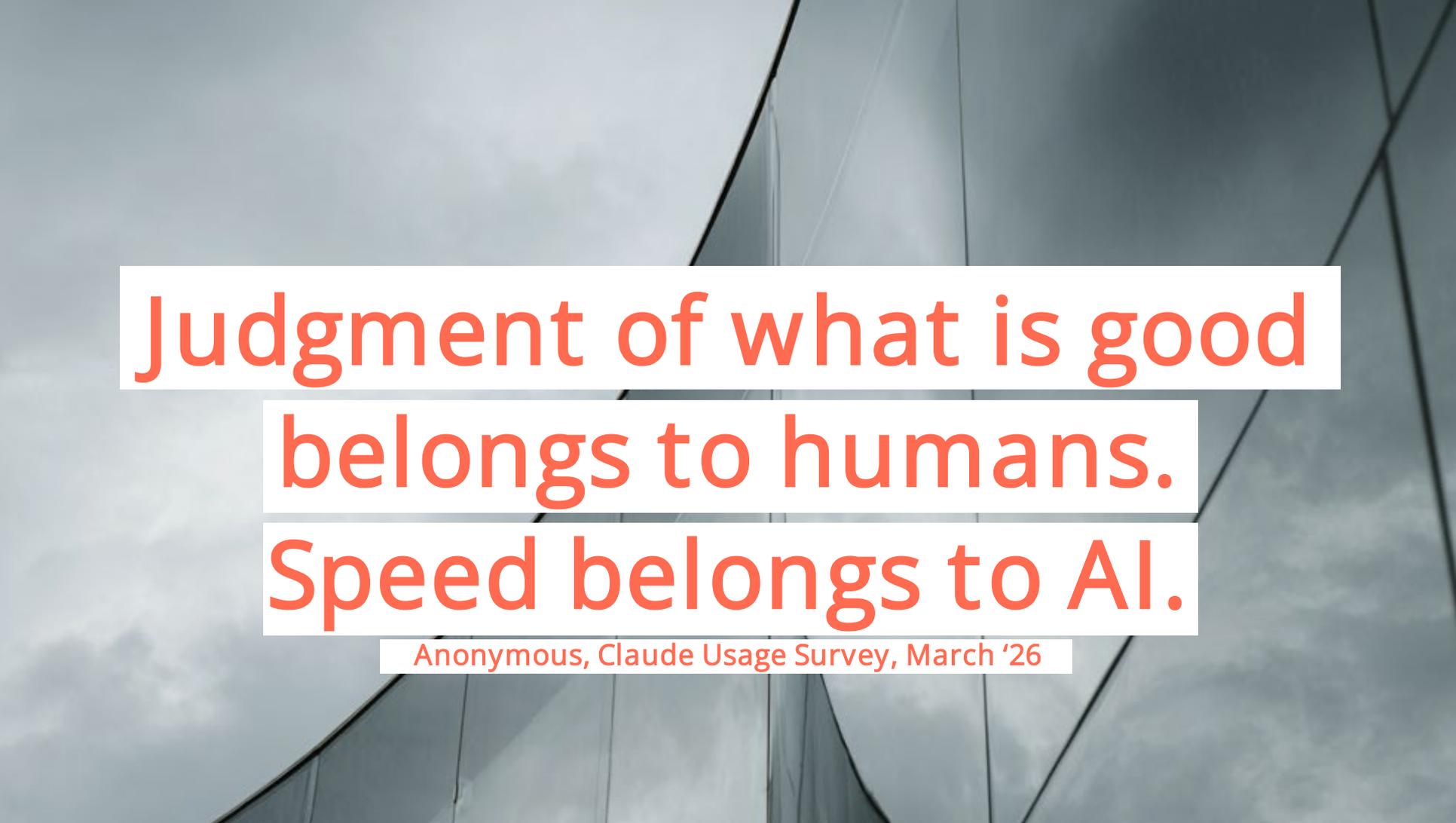


AI displacement risk – Current models are not used to their **theoretical capability**. Actual use is lower than the **potential** of the model.

Exposure is measured at the **task level**: design generation, coordination, compliance.

As **capabilities advance**, task-level exposure expands until it covers the profession as a whole.

Remaining passive is **not** a neutral choice. It is a risk in itself.

A background image showing the mast and rigging of a sailboat against a cloudy sky. The text is overlaid on this image in three white rectangular boxes.

Judgment of what is good
belongs to humans.
Speed belongs to AI.

Anonymous, Claude Usage Survey, March '26

We need robust frameworks built around **transparency, trust** and **ethical** use.
The **EU AI Act** makes this a **legal obligation**, not just a professional one.

Public **AI literacy** is not keeping pace with what these tools can do.
That gap is where **misleading information** takes hold.

We have **expanded our capabilities**. But we must use these tools **professionally**
and we remain **accountable** for what we produce.
The **responsibility** stays with the architect.

AI, Ethics & Regulation.

Extract (Google × UK Government) digitises decades of planning documents into structured data.

Objector generates policy-backed planning objections in minutes, already replicable with consumer LLMs.

The risk is not accuracy. It is volume. The planning system was never designed to process submissions at this scale.

The Planning Dilemma.

Reddan v An Bord Pleanála [2024]

the High Court criticised
AI-written legal submissions,

noting they had

"all the hallmarks of ChatGPT".

AI-powered nimbyism could grind UK planning system to a halt, experts warn

Tools that help people scan applications and find grounds for objection have potential to hit government's housebuilding plans



Press release

PM unveils AI breakthrough to slash planning delays and help build 1.5 million homes: 9 June 2025

One Iez
Photograp

Planning permissions will be sped up as the Government rolls out a new AI tool which can scan hundreds of files in seconds – making it easier to make home improvements, while turbocharging the Plan for Change milestone to build 1.5 million homes.

From: [Prime Minister's Office, 10 Downing Street, Department for Science, Innovation and Technology, Ministry of Housing, Communities and Local Government](#) and [The Rt Hon Sir Keir Starmer KCB KC MP](#)

Published 9 June 2025

Our Experience.

Project Reporting, Concept to
Material Selection on site,
Submittal Reviews
and Administrative Support.

188 active users. 77,000 messages.

1.3 billion words in 12 months.

Equivalent of 5 million A4 pages of AI-assisted work.

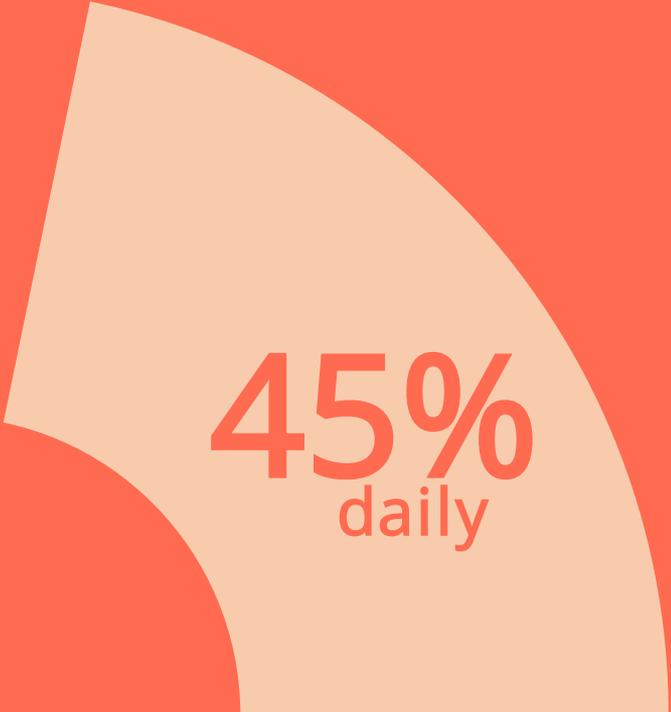
Every studio is creating generative images as part of our process.

The question is no longer whether we use AI.

It is whether we use it as a practice,
deliberately, collectively, strategically.

45% using it daily.

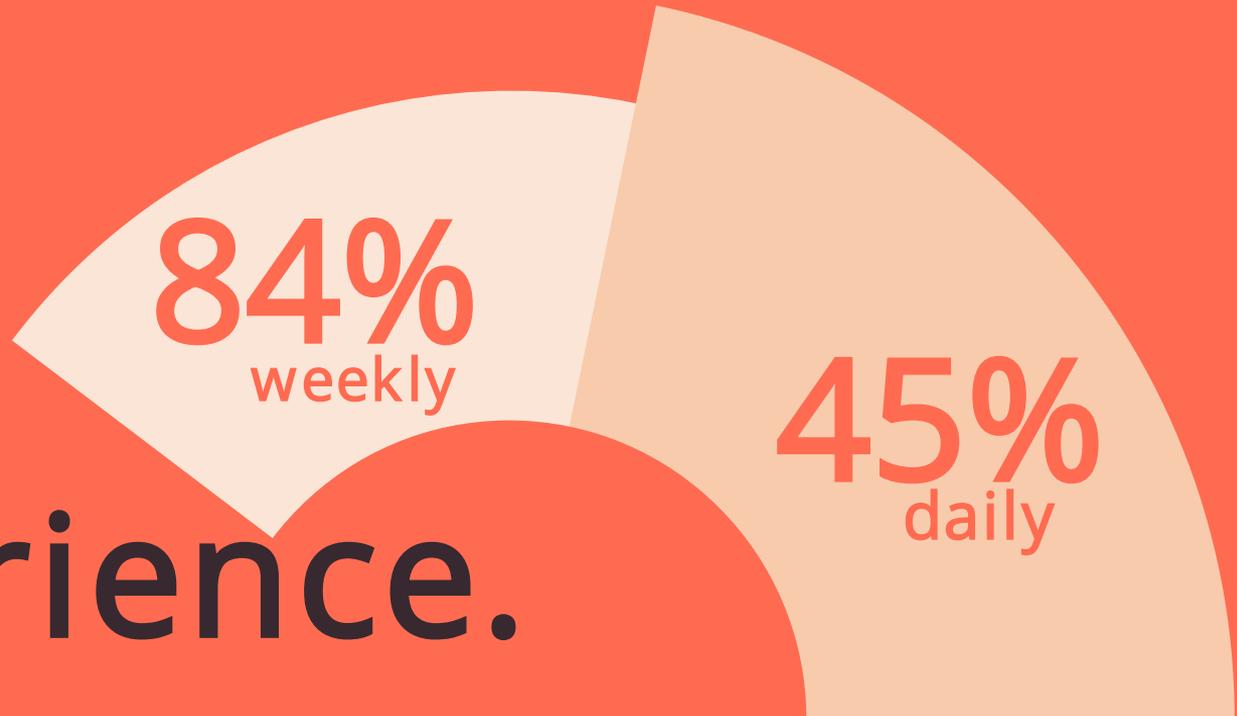
Our
Experience.



45%
daily

45% using it daily.

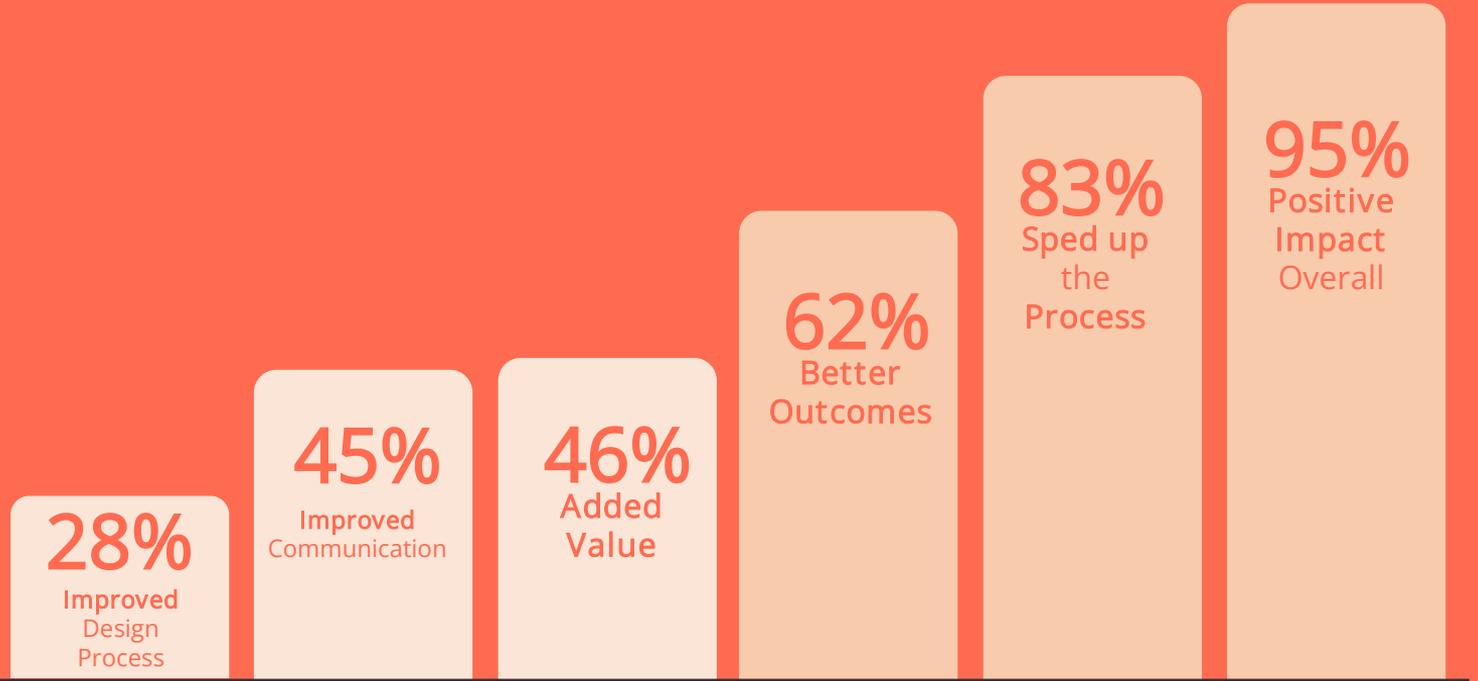
84% Using AI Weekly for their work.



Our Experience.

Our _____
Experience.

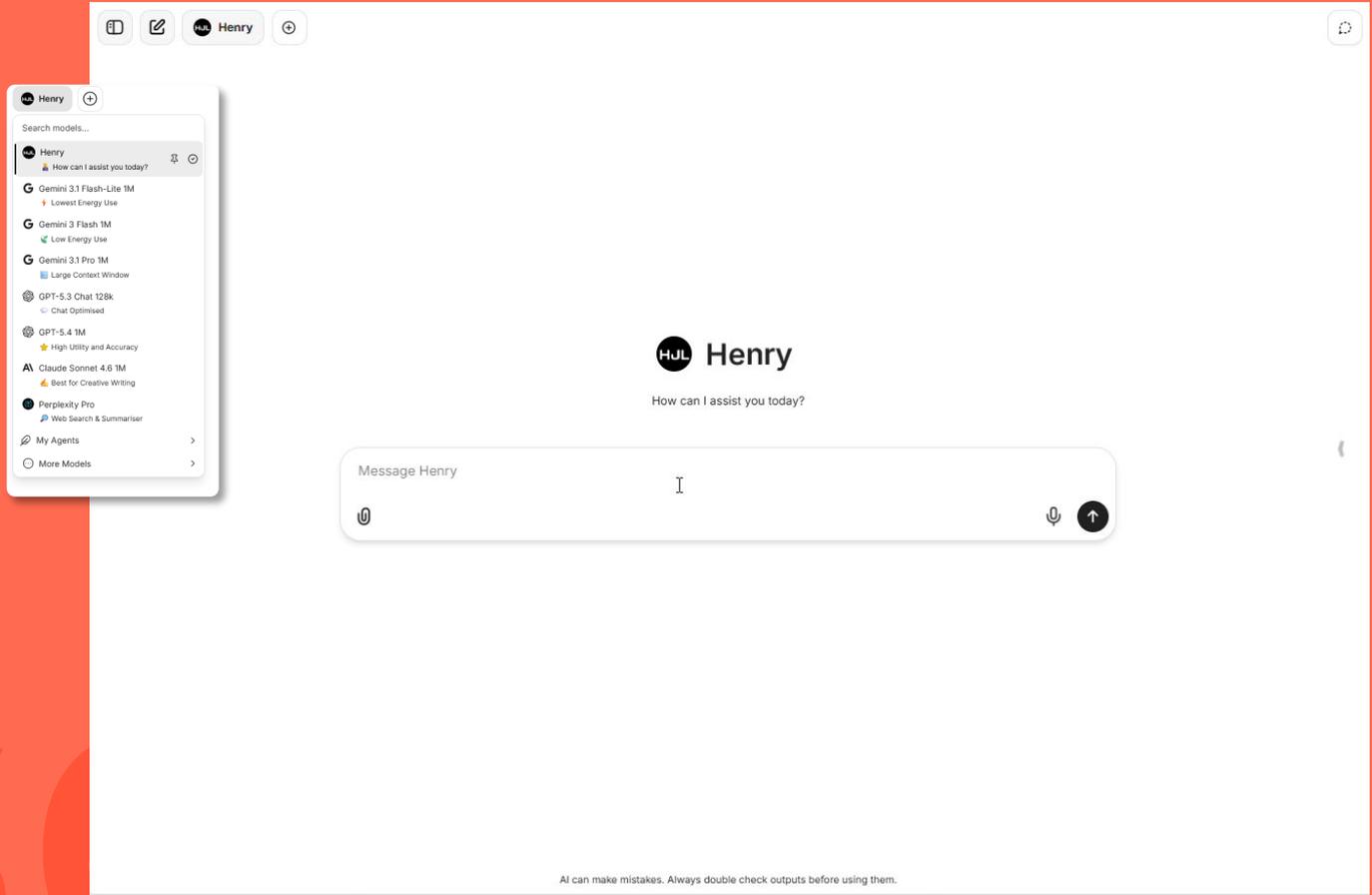
Our Experience.



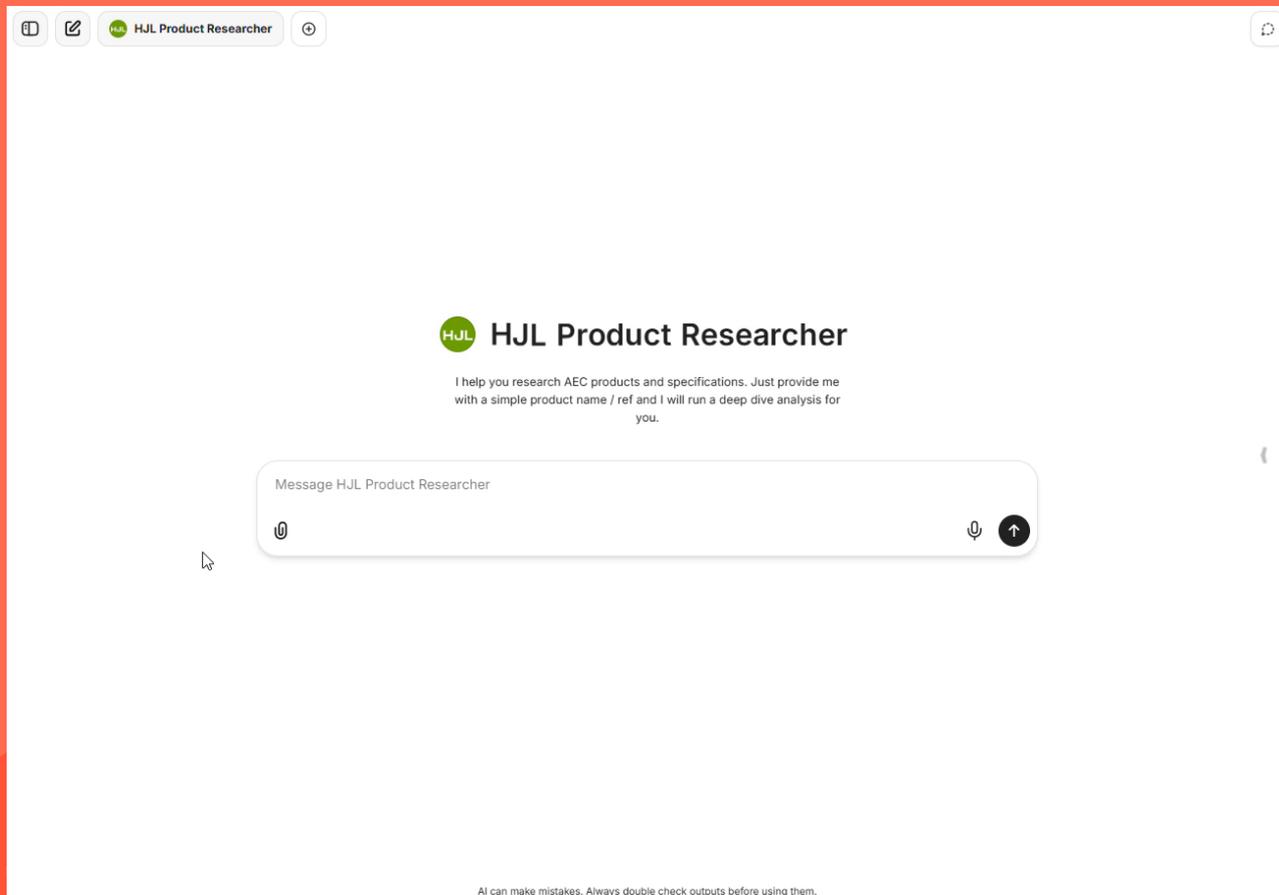
What this
looks like
in practice.

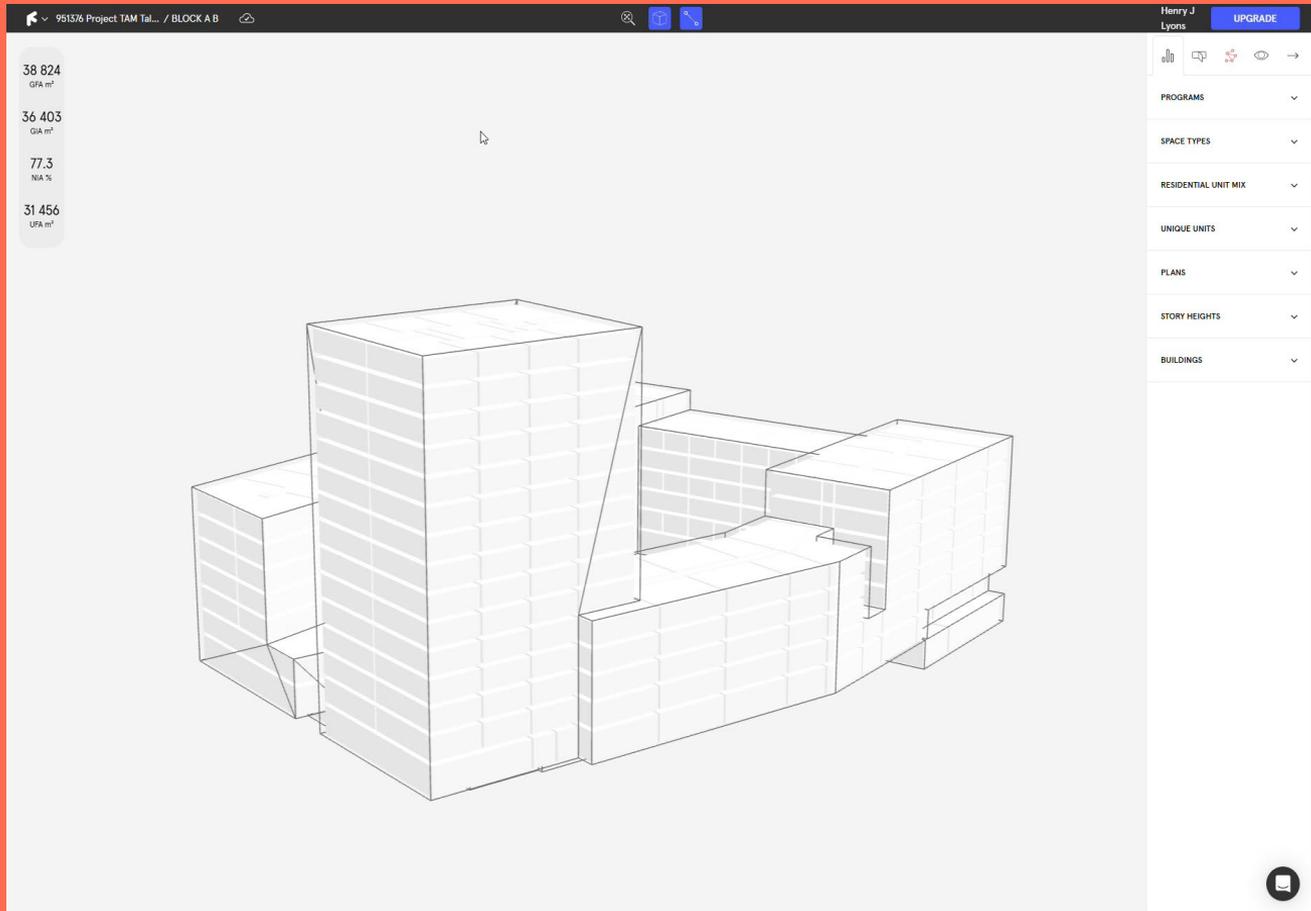


In Use Case 01: LLM Practice Concierge.

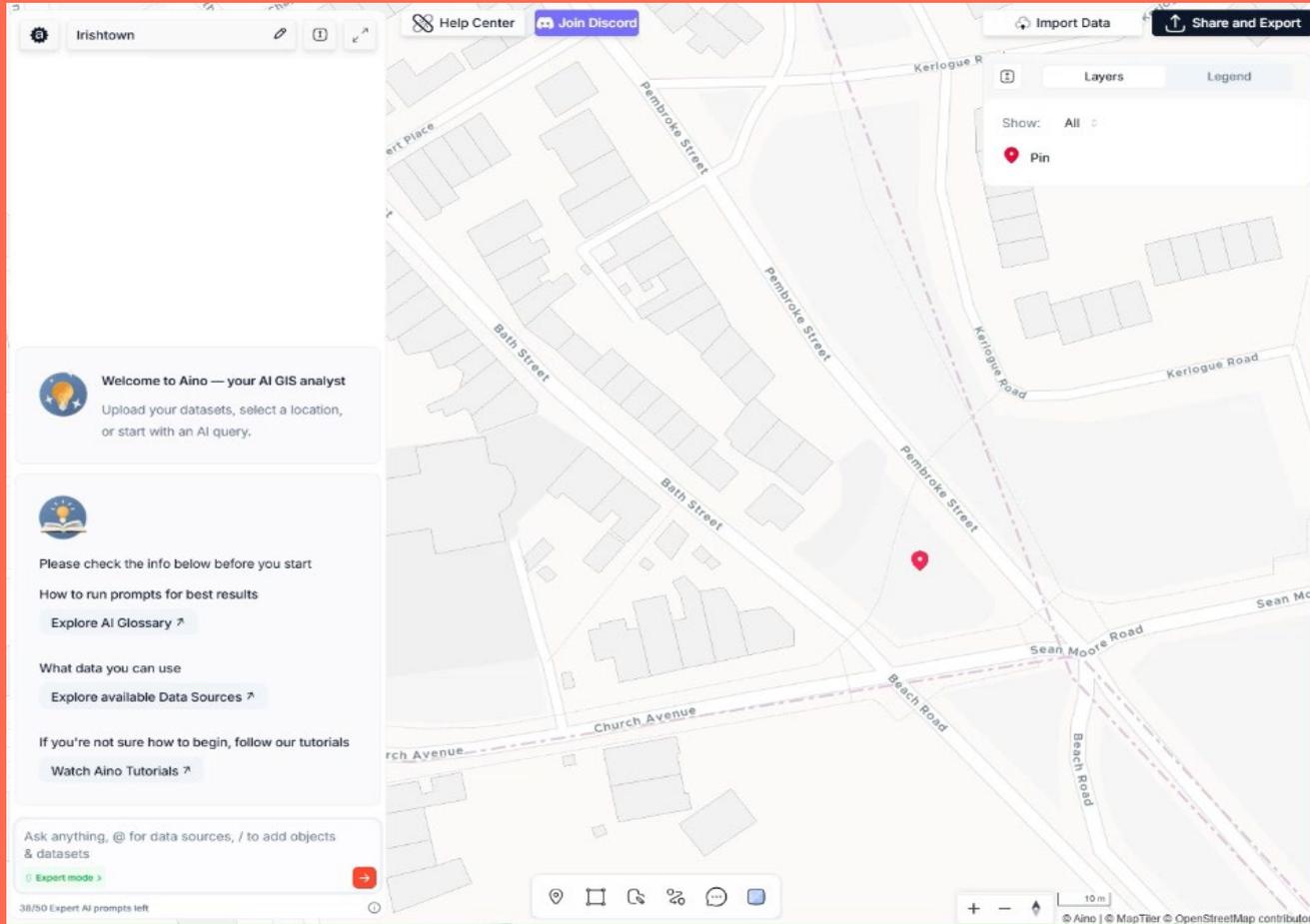


In Use Case 02: LLMs for Product Selection.





Use Case 03: Generative Layout Design.



Use Case 04: Generative AI for Site Appraisal.

Use Case 05: Drawing & QA Checks.



DRIVING 77%

90%

78%

91%

93%

92%

TITLE NOTES 95%

86%

96%

88%

81%

13 objects detected

Confidence Threshold: 70%

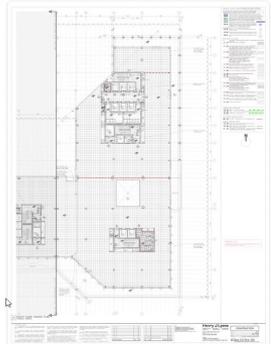
Overlap Threshold: 50%

Opacity Threshold: 75%

Label Display Mode: Draw Confidence

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      "width": 121.255,  
      "height": 569.291,  
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      "class_id": 3,  
      "detection_id": "143da8a"  
    },  
    {  
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    }  
  ]  
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Copy



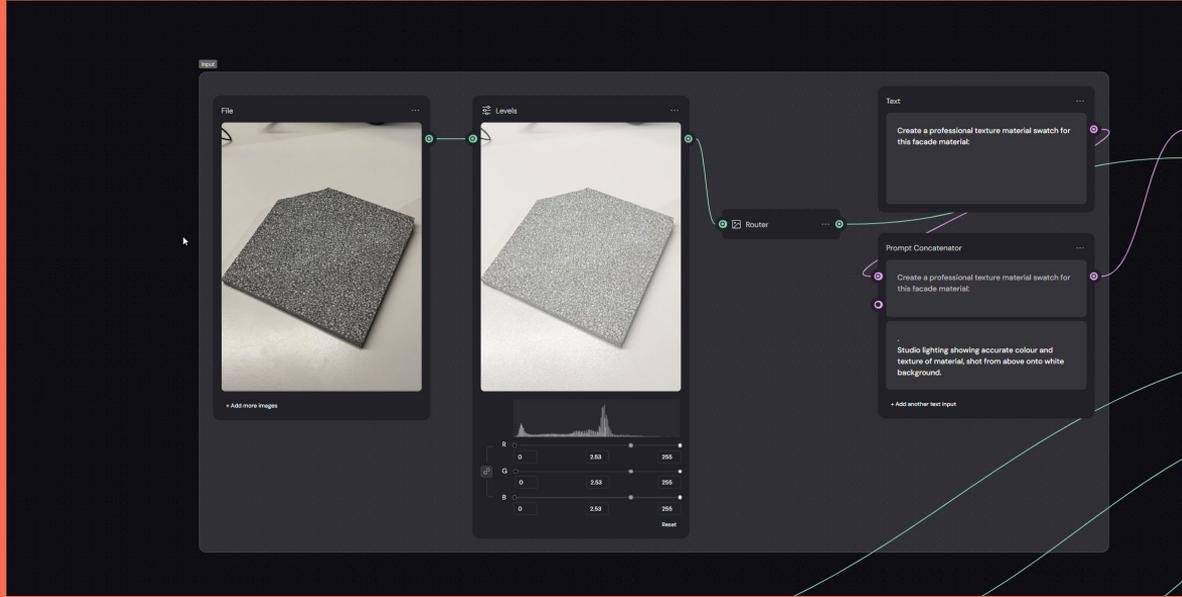
extract as much information you can from this drawing

Gemini 2.5 Pro

Thinking

Message Gemini 2.5 Pro

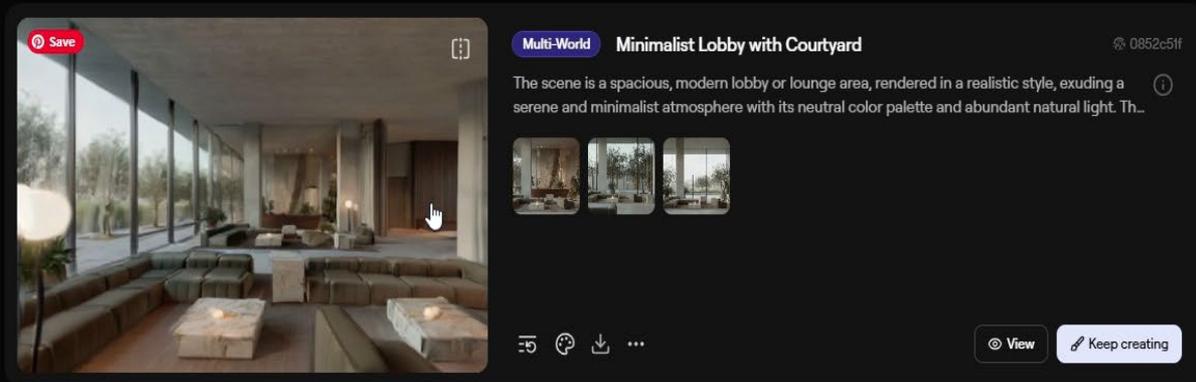
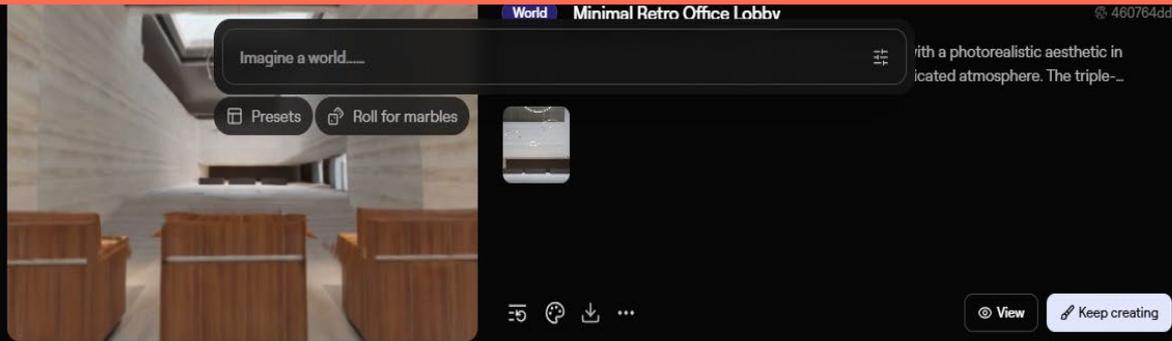
MCP Servers



Use Case 07: Material Testing



Weavy



Use Case 08:
World Models
Image-to-3D World

Input Untitled

c6e28478

World Labs

Takeaways.

People before technology.

Culture fit and trust matter more than tools.

Managing **pace** is as important as moving forward.

Harness the **curiosity**. Use this **momentum** to build.

Be aware of the limitations of models,
legal and professional obligations.

Keep the **human at the centre** of every decision.

Do we want to **automate** away our ownership?

The design process is being redefined.

Engage early.

Be part of defining it.



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Thank
Thank You.

